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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/635,561	08/10/2000	Shinsuke Yokokawa	Q60393	6018

7590 07/28/2004

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EXAMINER

PHAM, THOMAS K

ART UNIT PAPER NUMBER

2121

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

**Application No.**

09/635,561

**Applicant(s)**

YOKOKAWA, SHINSUKE

**Examiner**

Thomas K Pham

**Art Unit**

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

***Notice to Applicant(s)***

1. Claims 1-3 of U.S. Application 09/635,556 filed on 08/10/2000 are presented for examination in response to the request for consideration filed 4/23/2004.
2. Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

***Drawings***

3. Figures 3, 4A and 4B should be designated by a legend such as --Prior Art-- because Applicants referred to these figures as "conventional programmable controller" in the "Background of The Invention" section. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

**Quotations of U.S. Code Title 35**

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

### **Claim Rejections - 35 USC § 102**

6. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,555,225 ("Hayashi").

#### **Regarding claim 1**

Hayashi teaches a programmable controller for controlling a controlled apparatus by pulse output, comprising:

- a pulse generating section for outputting a pulse string having a set cycle (fig. 2, element 5a)
- a pulse dividing section for dividing the pulse string output from said pulse generating section at a predetermined dividing ratio (fig. 2, elements 3 and 4 combined creates the pulse dividing section) and for outputting an interruption request signal having a cycle which is n times as great as the cycle of the pulse string, where n is a positive integer (interruption request signal OP4 or OP5 supplies to CPU 2 from the output of the pulse dividing section (3 and 4) );
- a central processing unit (fig. 2, element 2) for executing an interruption processing in response to the interruption request signal output from said pulse dividing section (col. 5 lines 24-30, "If the operation of the ... through the data bus DB") so as to directly control

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the output of said pulse generating section (fig. 2, CPU 2 is directly control clock generator 5a via line 16).

**Regarding claim 3**

Hayashi teaches a central processing unit changes the dividing ratio to be used for the division of said pulse dividing section depending on the cycle of the pulse string output from said pulse generating section (col. 5 lines 17-21, "The frequency of this resonance ... to operate the microcomputer 1a").

**Claim Rejections - 35 USC § 103**

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of U.S. Patent No. 5,996,083 ("Gupta")

**Regarding claim 2**

Hayashi teaches a central processing unit sets a dividing ratio to be used for division of the pulse dividing section (col. 5 lines 17-21, "The frequency of this resonance ... to operate the microcomputer 1a") but does not teach the CPU controls the number of pulses output from said pulse generating section, and sets the dividing ratio to be equal to the number of pulses which have not been output when the number of the pulses which are output is smaller than  $2n$ .

However, Gupta teaches the CPU controls the number of pulses output from said pulse generating section (col. 7 lines 26-38, "The first is a clock divider ... value in that field") and discloses available software programs can be use to set the dividing ratio values (col. 5 lines 61-64, "The power control register 106 ... the manufacturing process") to integer ratios (col. 6 lines 50-59, "The extent to which ... signal down to zero") and could be adjust by software programs according to the designer (col. 7 lines 28-38, "The clock divider output ... value in that field")

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for the purpose of utilizing individual clock divider circuits and eliminates a need for a unified clock signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the system of Gupta with the system of Hayashi because it would provide for the purpose of utilizing individual clock divider circuits and eliminates a need for a unified clock signal.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (703) 305-7587 and fax number is (703) 746-8874, Monday-Thursday and every other Friday from 7:30AM- 5:00PM EST or contact Supervisor *Mr. Anthony Knight* at (703) 308-3179.

Any response to this office action should be mailed to: **Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450**. Responses may also be faxed to the **official fax number (703) 872- 9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Thomas Pham**  
*Patent Examiner*

*TP*

July 16, 2004



**Anthony Knight**  
**Supervisory Patent Examiner**  
**Group 3600**